

1. A set of instruments of progressively smaller sizes adapted for use in performing root canal therapy comprising:

each of the instruments having an elongated shaft comprising a proximal end and a distal end and a short enlarged continuously tapered working length formed on the shaft adjacent to the distal end, and

the short enlarged continuously tapered working length having at least one continuous cutting edge thereon.

2. The set of instruments of claim 1 wherein each instrument has multiple cutting edges on the short enlarged continuously tapered working length thereof formed by multiple flutes thereon.

3. The set of instruments of claim 2 wherein the cutting edges and flutes are parallel to the axes of the instruments, are angled or are spiraled clockwise or counter-clockwise.

4. The set of instruments of claim 1 wherein the larger instruments of the set of instruments have short enlarged working length tapers of 0.1 millimeter per millimeter of length and at least the smallest one of the set of instruments has a short enlarged working length taper of 0.05 millimeter per millimeter of length.

5. The set of instruments of claim 1 wherein each instrument has three cutting edges on the short enlarged continuously tapered working length thereof formed by three flutes thereon.

6. The set of instruments of claim 1 wherein each instrument has six cutting edges on the short enlarged continuously tapered working length thereof formed by three flutes thereon.

7. The set of instruments of claim 1 wherein the cross-sectional shape of the short enlarged continuously tapered working length of each instrument is triangular with concave sides, triangular, square or polygonal.

8. The set of instruments of claim 1 wherein the short enlarged continuously tapered working length of each of the instruments is no longer than 3 millimeters.

9. The set of instruments of claim 1 wherein the distal end of each instrument is of a bi-conical shape for guiding the distal end and the short enlarged continuously tapered working length of the instrument in the direction of the root canal axis.

10. The set of instruments of claim 1 wherein the shaft of each instrument between the proximal end thereof and the short enlarged continuously tapered working length thereof includes flutes and cutting edges thereon that engage a root canal when the root canal is curved.

11. The set of instruments of claim 1 wherein the shaft of each instrument between the proximal end thereof and the short enlarged continuously tapered working length thereof has an increasing diameter from the short enlarged continuously tapered working length to the proximal end.

12. A method of performing root canal therapy comprising the steps of:

(a) providing a set of instruments of progressively smaller sizes, each having an elongated shaft comprising a proximal end and a distal end and a short enlarged continuously tapered working length formed on the shaft adjacent to the distal end, the short enlarged continuously tapered working length having at least one continuous cutting edge thereon;

(b) inserting a first of the instruments in the coronal portion of the root canal and rotating the instrument to enlarge the coronal portion into a short enlarged continuous taper of a size corresponding to the short enlarged continuously tapered working length of the first instrument; and

(c) inserting a second and one or more additional instruments having progressively smaller short enlarged continuously tapered working lengths in the root canal and rotating each instrument to thereby enlarge the root canal to the foramina thereof into an enlarged continuous taper of a size corresponding to the short enlarged continuously tapered working lengths of the first, second and one or more additional instruments.

13. The method of claim 12 wherein each instrument has multiple cutting edges on the short enlarged continuously tapered working length thereof formed by multiple flutes thereon.

14. The method of claim 12 wherein the cutting edges and flutes are parallel to the axes of the instruments, are angled or are spiraled clockwise or counter-clockwise.

15. The method of claim 14 wherein the larger instruments of the set of instruments have short enlarged working length tapers of 0.1 millimeter per millimeter of length and at least the smallest one of the set of instruments has a short enlarged working length taper of 0.05 millimeter per millimeter of length.

16. The method of claim 12 wherein each instrument has three cutting edges on the short enlarged continuously tapered working length thereof formed by three flutes thereon.

17. The method of claim 12 wherein each instrument has six cutting edges on the short enlarged continuously tapered working length thereof formed by three flutes thereon.

18. The method of claim 12 wherein the cross-sectional shape of the short enlarged continuously tapered working length of each instrument is triangular with concave sides, triangular, square or polygonal.

19. The method of claim 12 wherein the short enlarged continuously tapered working length of each of the instruments is no longer than 3 millimeters.

20. The method of claim 12 wherein the distal end of each instrument is of a bi-conical shape for guiding the distal end and the short enlarged continuously tapered working length of the instrument in the direction of the root canal axis.

21. The method of claim 12 wherein the shaft of each instrument between the proximal end thereof and the short enlarged continuously tapered working length thereof includes flutes and cutting edges thereon that engage a root canal when the root canal is curved.

22. The method of claim 12 wherein the shaft of each instrument between the proximal end thereof and the short enlarged continuously tapered working length thereof has an increasing diameter from the short enlarged continuously tapered working length to the proximal end.